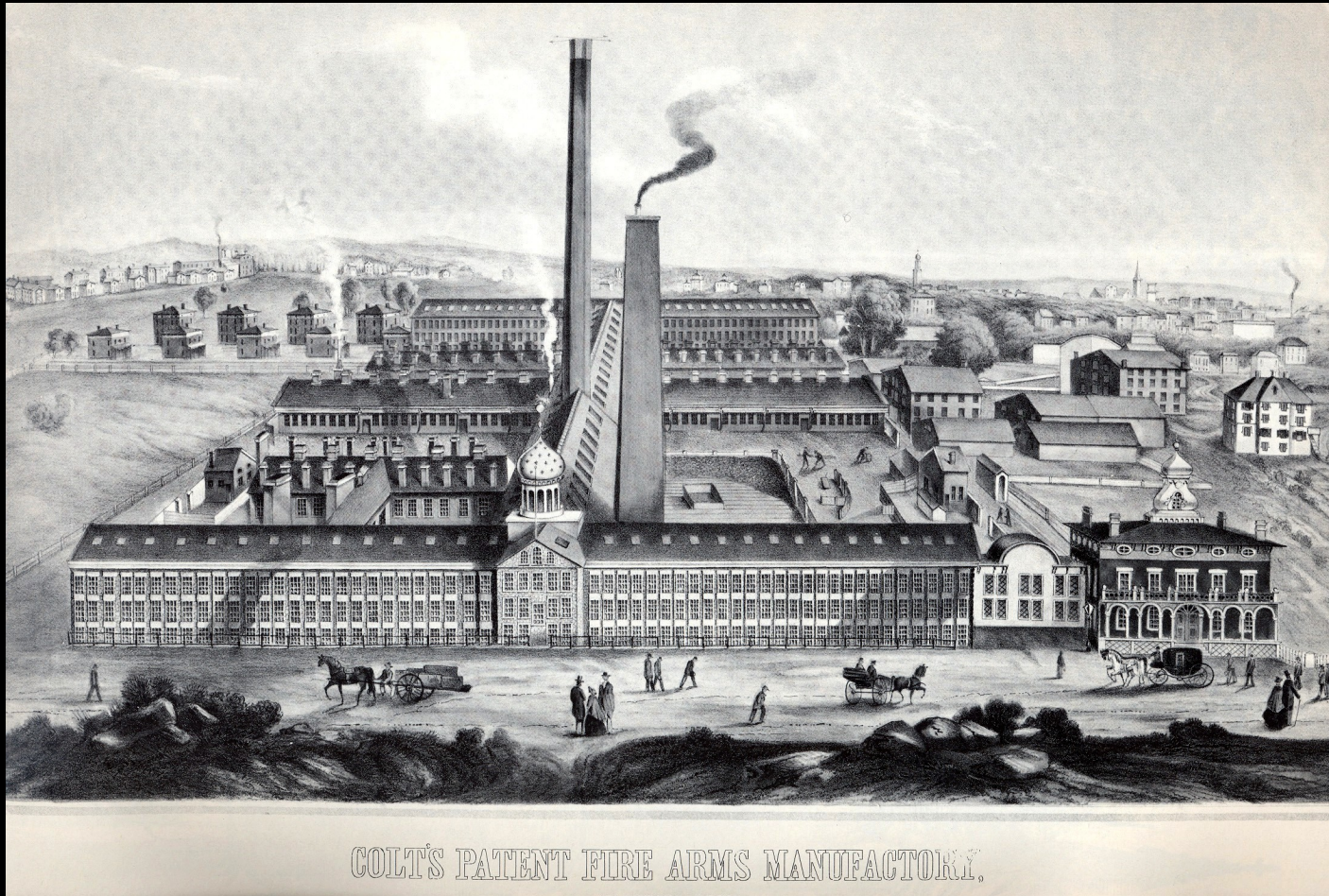


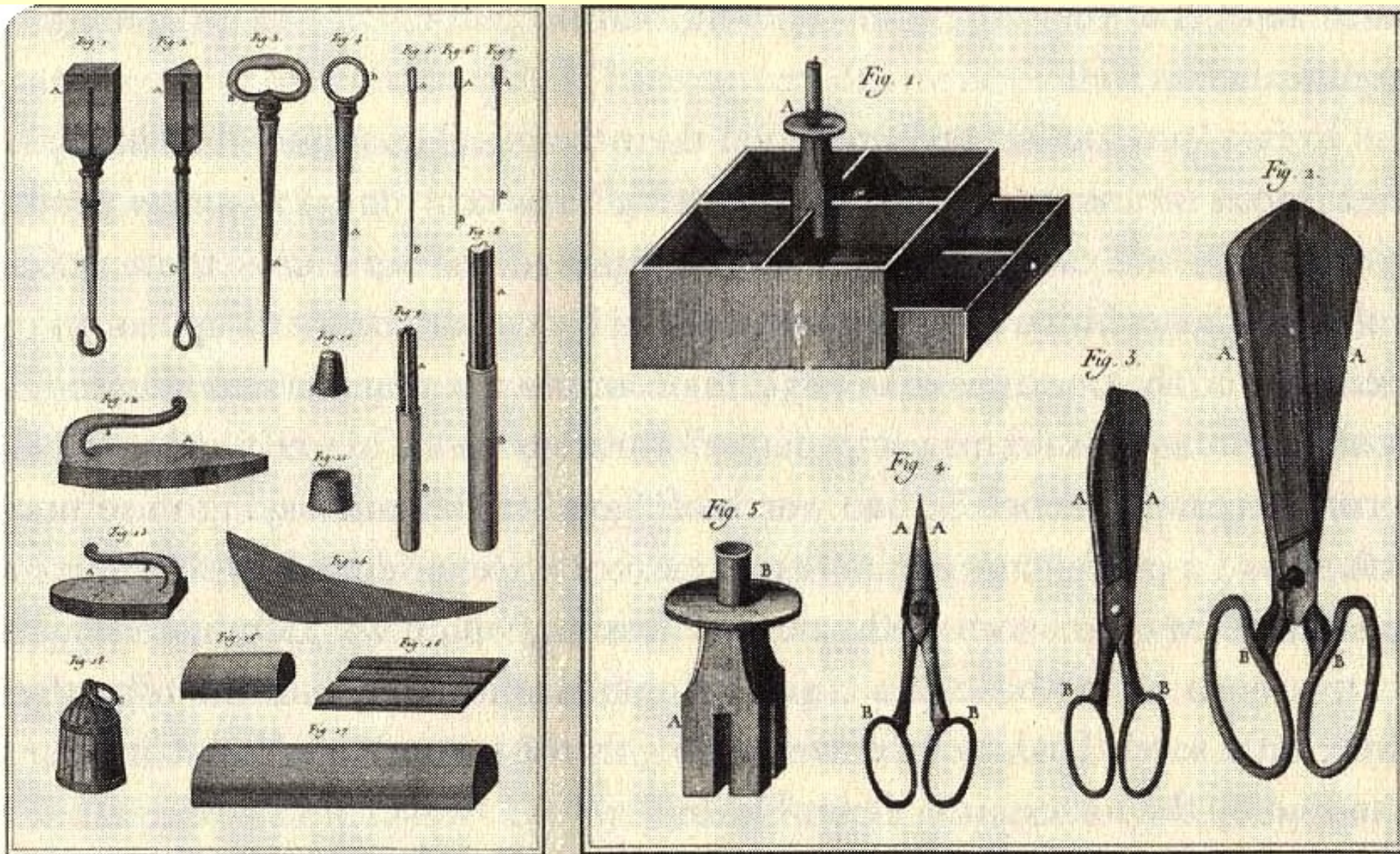
The Rise of Industrial America



COLT'S PATENT FIRE ARMS MANUFACTORY.

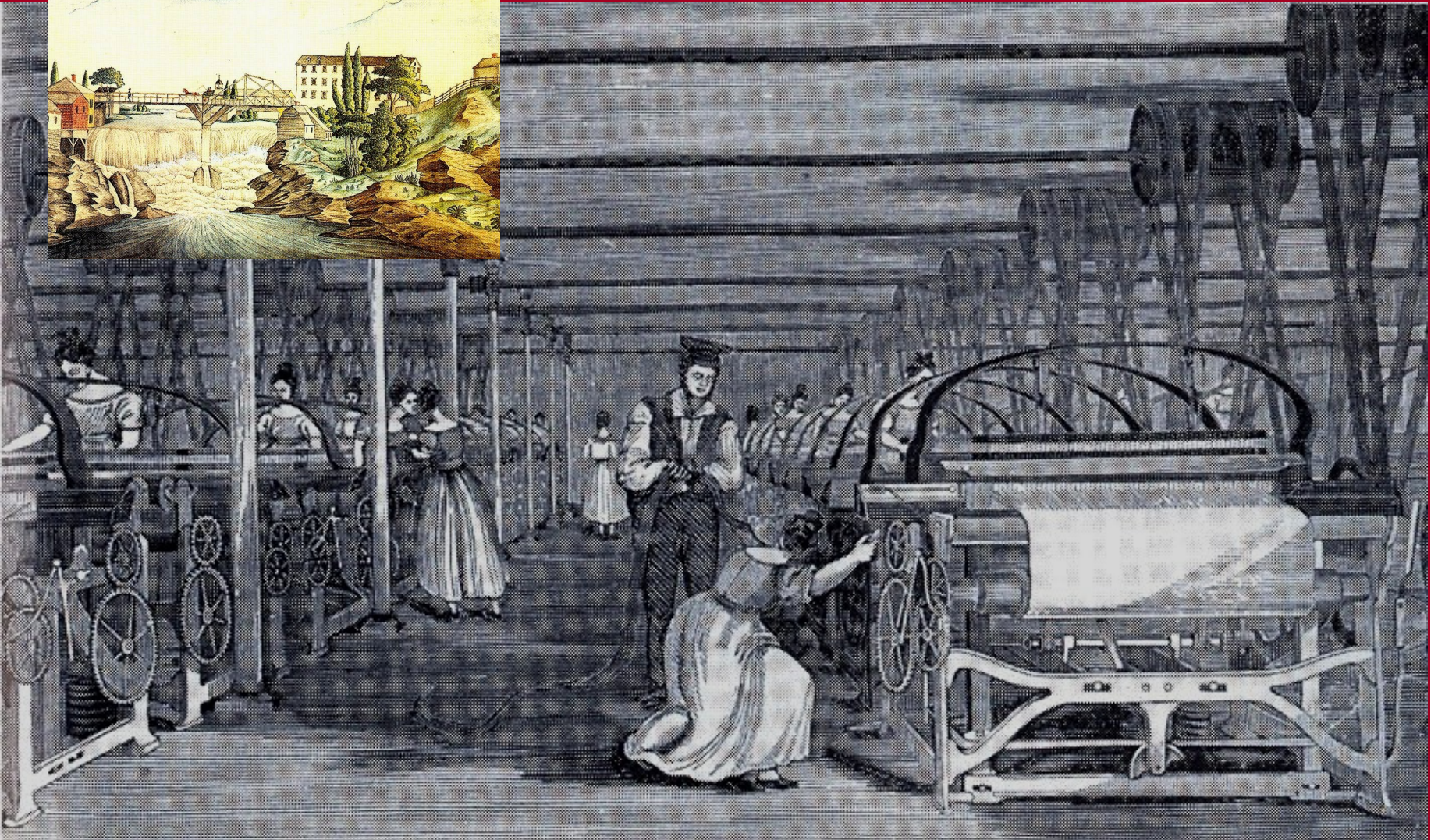
HARTFORD, CONN.

Step 1 – Change the Process



A Tailor's Tools (from Diderot's *Encyclopédie*)

Step 2 – The Factory



TIME TABLE OF THE LOWELL MILLS,

To take effect on and after Oct. 21st, 1851.

The Standard time being that of the meridian of Lowell, as shown by the regulator clock of JOSEPH RAYNES, 43 Central Street

	From 1st to 10th inclusive.				From 11th to 20th inclusive.				From 21st to last day of month.			
	1st Bell	2d Bell	3d Bell	Eve. Bell	1st Bell	2d Bell	3d Bell	Eve. Bell	1st Bell	2d Bell	3d Bell	Eve. Bell
January,	5.00	6.00	6.50	*7.30	5.00	6.00	6.50	*7.30	5.00	6.00	6.50	*7.30
February,	4.30	5.30	6.40	*7.30	4.30	5.30	6.25	*7.30	4.30	5.30	6.15	*7.30
March,	5.40	6.00		*7.30	5.20	5.40		*7.30	5.05	5.25		6.35
April,	4.45	5.05		6.45	4.30	4.50		6.55	4.30	4.50		7.00
May,	4.30	4.50		7.00	4.30	4.50		7.00	4.30	4.50		7.00
June,	"	"		"	"	"		"	"	"		"
July,	"	"		"	"	"		"	"	"		"
August,	"	"		"	"	"		"	"	"		"
September,	4.40	5.00		6.45	4.50	5.10		6.30	5.00	5.20		*7.30
October,	5.10	5.30		*7.30	5.20	5.40		*7.30	5.35	5.55		*7.30
November,	4.30	5.30	6.10	*7.30	4.30	5.30	6.20	*7.30	5.00	6.00	6.35	*7.30
December,	5.00	6.00	6.45	*7.30	5.00	6.00	6.50	*7.30	5.00	6.00	6.50	*7.30

*Excepting on Saturdays from Sept. 21st to March 23th inclusive, when it is rung at 20 minutes after sunset.

YARD GATES,

Will be opened at ringing of last morning bell, of meal bells, and of evening bells; and kept open Ten minutes.

MILL GATES.

Commence hoisting Mill Gates, Two minutes before commencing work.

WORK COMMENCES,

At Ten minutes after last morning bell, and at Ten minutes after bell which "rings in" from Meals.

BREAKFAST BELLS.

During March "Ring out".....at....7.30 a. m....."Ring in" at 8.05 a. m.
 April 1st to Sept. 20th inclusive.....at....7.00 " " " " at 7.35 " "
 Sept. 21st to Oct. 31st inclusive.....at....7.30 " " " " at 8.05 " "

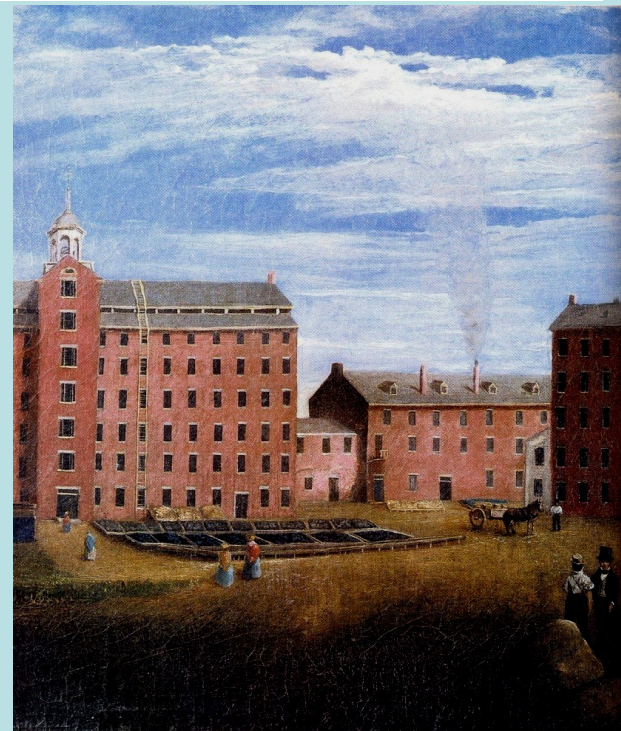
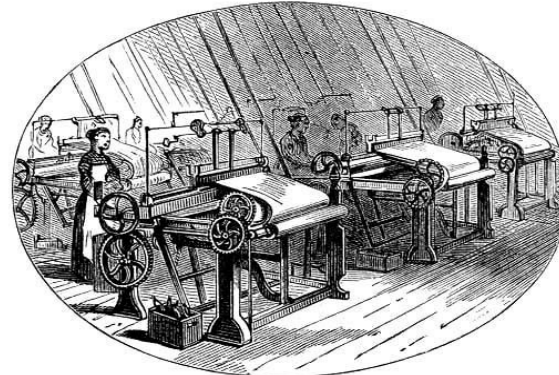
Remainder of year work commences after Breakfast.

DINNER BELLS.

"Ring out".....12.30 p. m....."Ring in"....1.05 p. m.

In all cases, the *first* stroke of the bell is considered as marking the time.

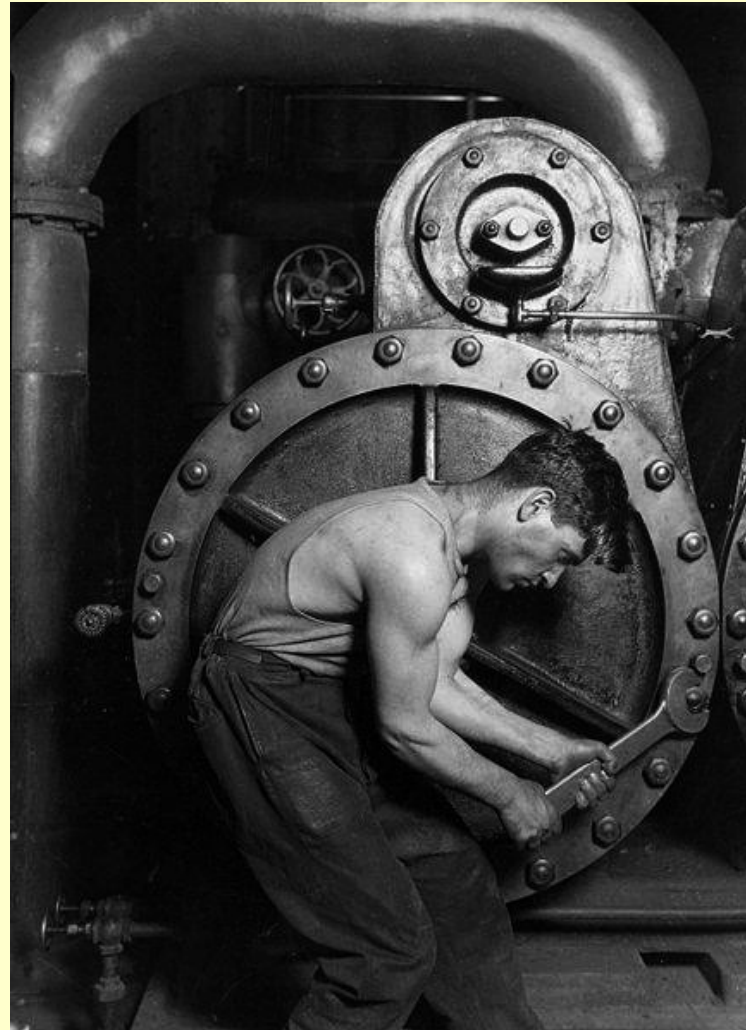
B. H. Penhallow, Printer, 28 Merrimack Street.



The Rise of Industrial America

Key Sources

- Natural Resources
- Capital
- Labor
- Ingenuity
- Huge Domestic Market
- Government Policy
- Ideology



The Rise of Industrial America

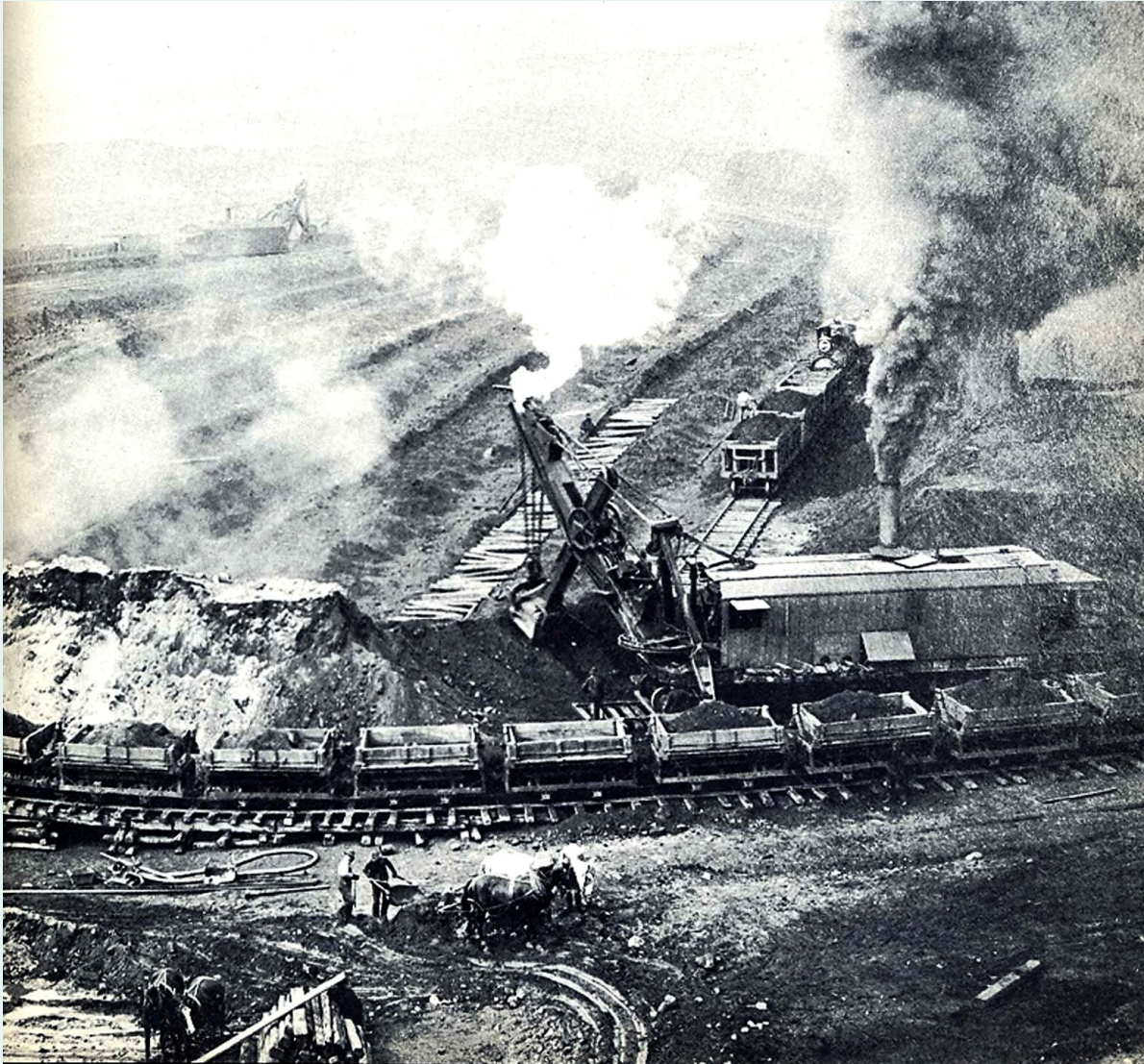
Key Sources - Natural Resources

COAL



The Rise of Industrial America

Key Sources—Natural Resources



IRON

The Mesabi Range (MN)

The Rise of Industrial America

Key Sources—Natural Resources

WOOD



The Rise of Industrial America

Key Sources—Natural Resources

OIL



Pennsylvania oil field 1864

The Rise of Industrial America

Key Sources - Capital

America – a “developing nation”
in the 19th century



INTERIOR OF THE MAIN FLOOR OF THE NEW YORK STOCK EXCHANGE IN 1897
VIEW LOOKING TOWARD THE SOUTHEAST

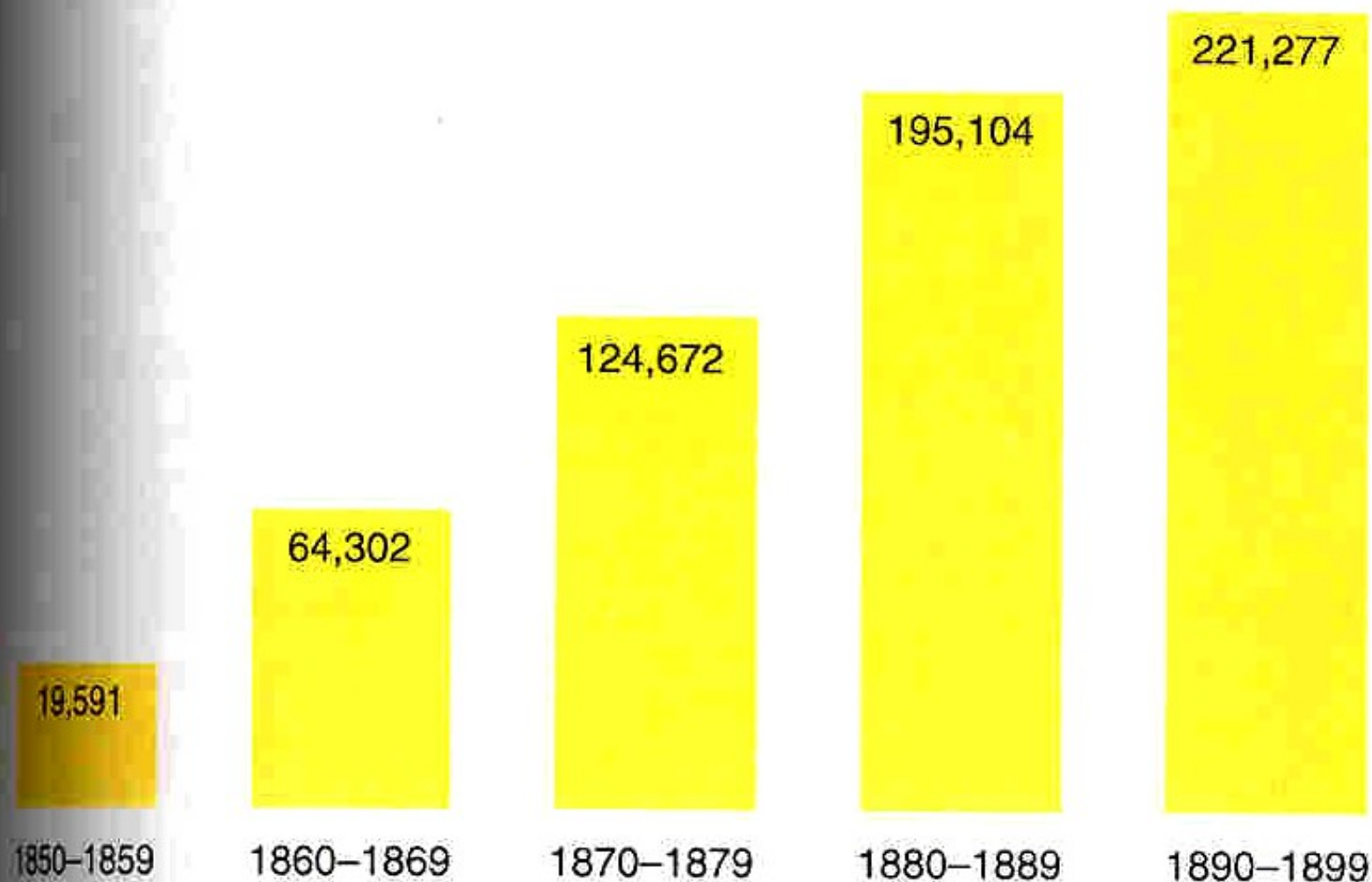
The Rise of Industrial America

Key Sources - Labor

- Domestic
- Immigrant



PATENTS ISSUED, BY DECADE, 1850–1899

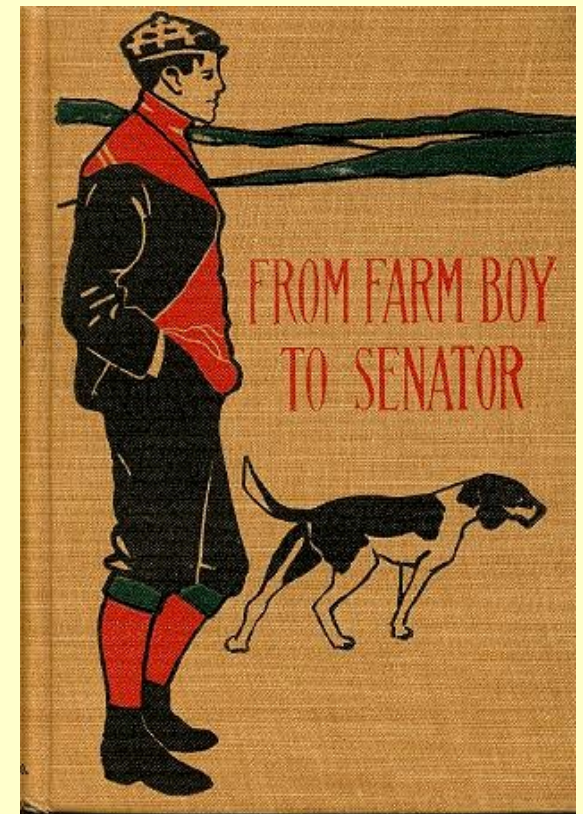
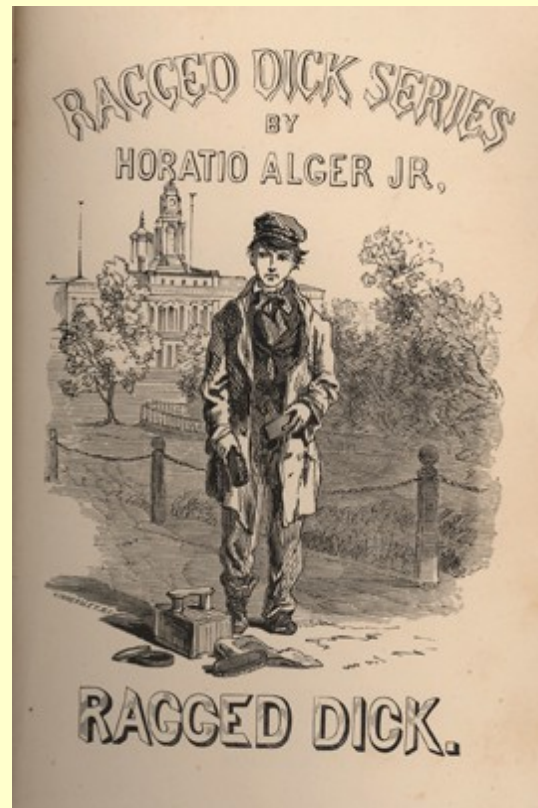
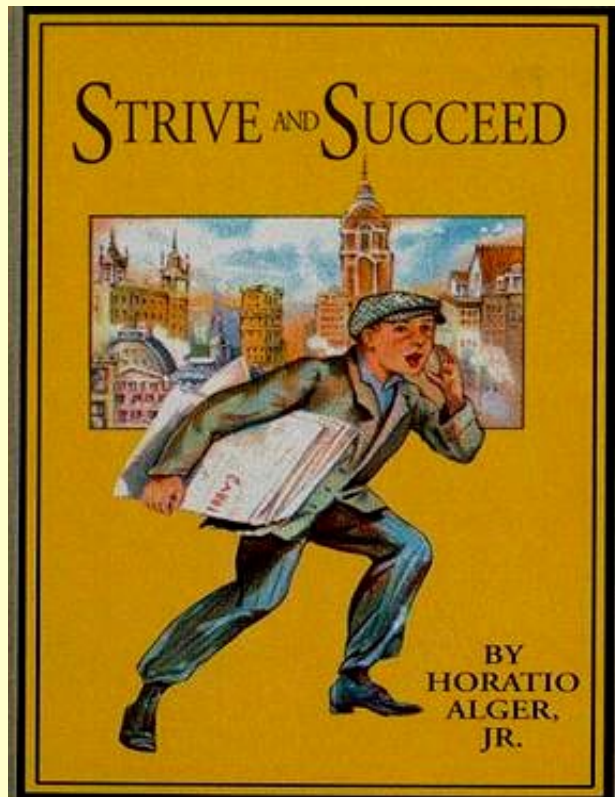


Source: U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970*, Bicentennial Edition, Washington, D.C., 1975.

The Rise of Industrial America

Key Sources - **Ideology**

The Self-Made Man



The Rise of Industrial America

Key Sources - Huge Domestic Market



Taxes
Tariffs
Currency
Laws

The Rise of Industrial America

Key Sources – GOVERNMENT POLICY

On the One Hand – Laissez-Faire (“hands off”)

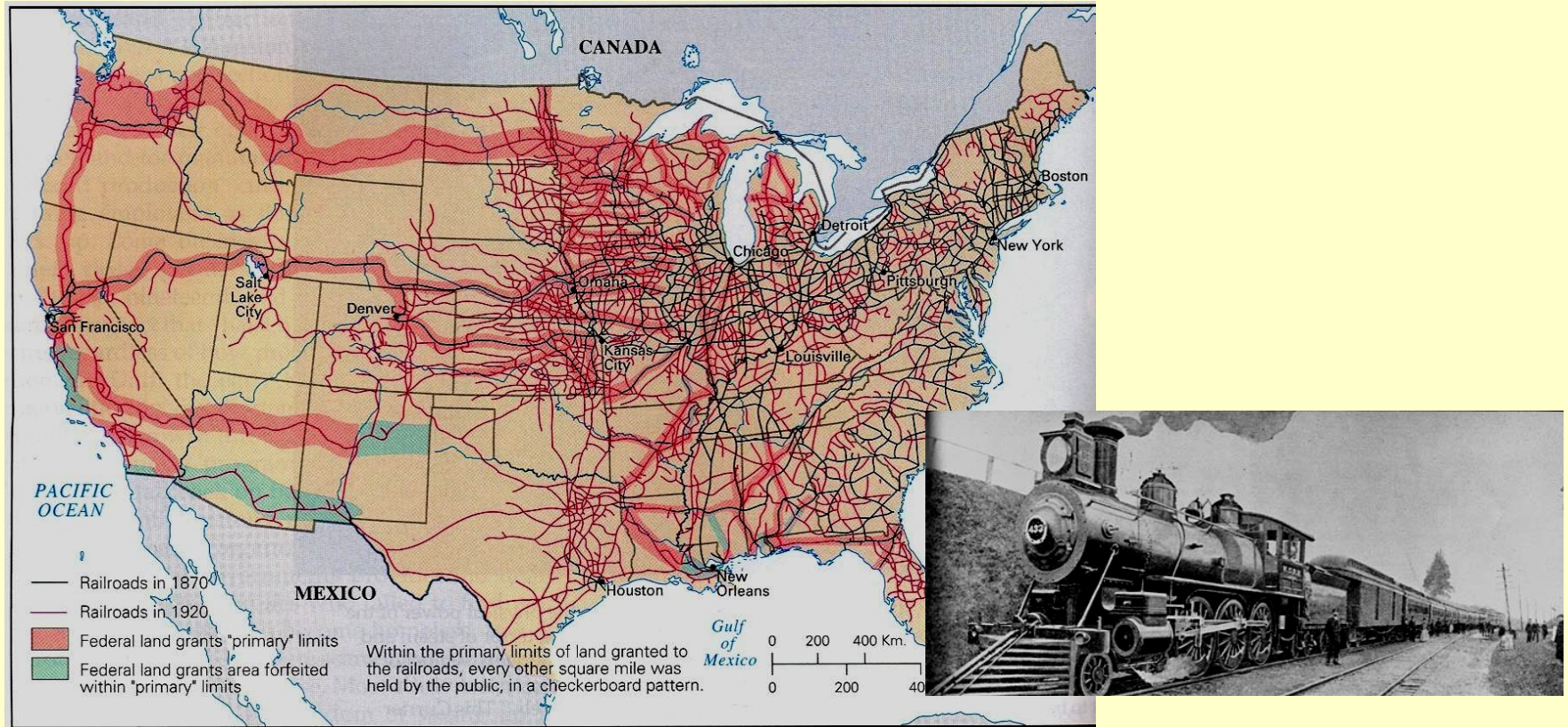
- No regulations on
 - Wages
 - Worker Safety
 - Workman’s Compensation
- No rules for corporate behavior
 - Pools, Trusts, & Monopolies
 - Price-Fixing
 - Secret deals (i.e., rebates)
- No laws on product safety



The Rise of Industrial America

Key Sources – GOVERNMENT POLICY

On the Other Hand – Pro-Business Programs



Federal government gave the railroads 180 million acres in land grants and \$500 million in loans and tax breaks

The Rise of Industrial America

Key Sources – **GOVERNMENT POLICY**

On the Other Hand – Pro-Business Programs

The Homestead Act - 600 million acres of land given away



The Rise of Industrial America

Key Sources – **GOVERNMENT POLICY**

On the Other Hand – Pro-Business Programs



**The Tariff – promotes American manufacturing
by making imported goods more expensive**

The Rise of Industrial America

Key Sources – **GOVERNMENT POLICY**

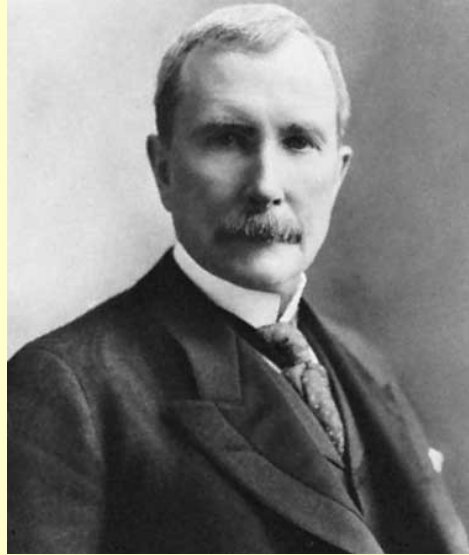
On the Other Hand – Pro-Business Policy



**Repression of Strikes
and Labor Unions**

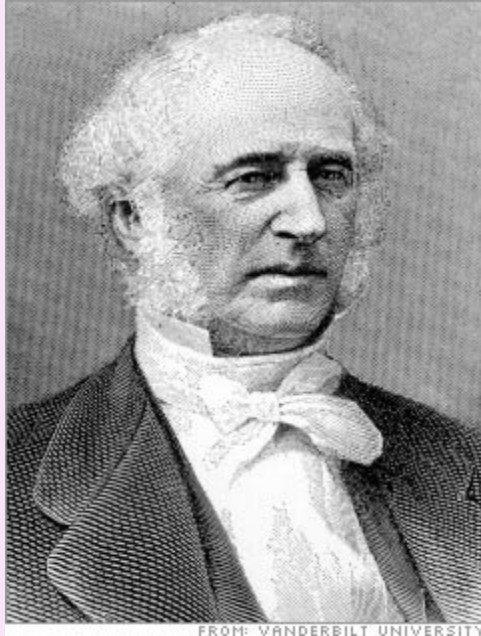
“Captains of Industry”

Oil – John D. Rockefeller



“Captains of Industry”

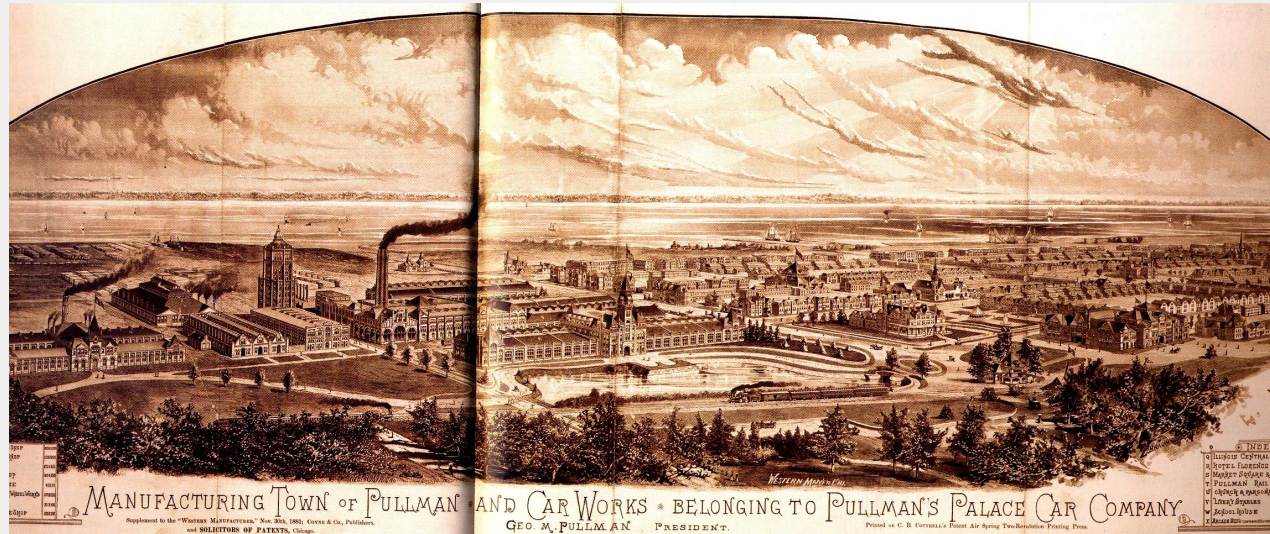
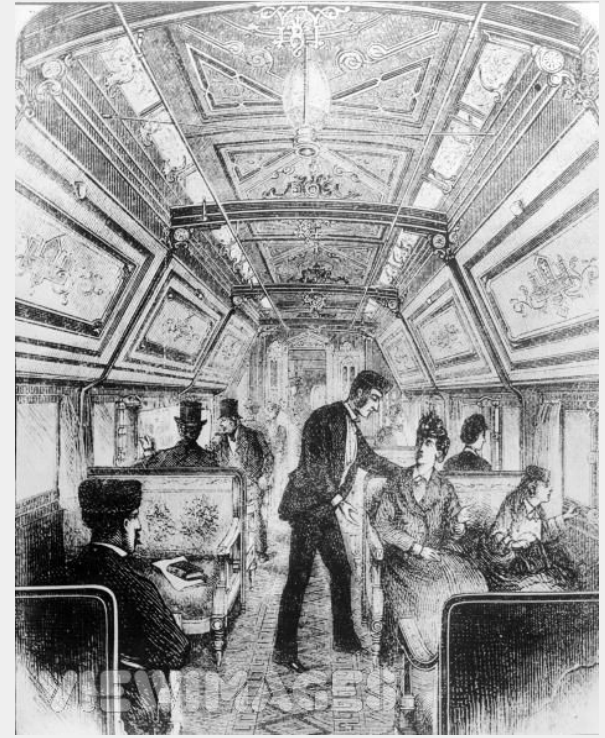
Railroads – Cornelius Vanderbilt



Grand Central Terminal - NYC

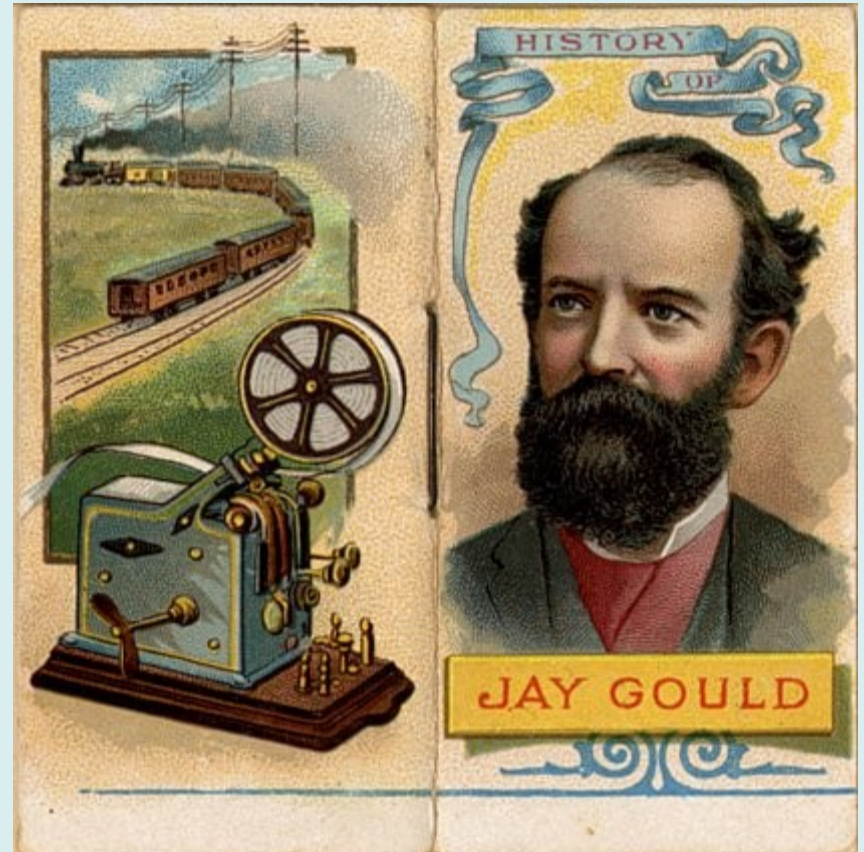
“Captains of Industry”

Sleeping Cars – George Pullman



“Captains of Industry”

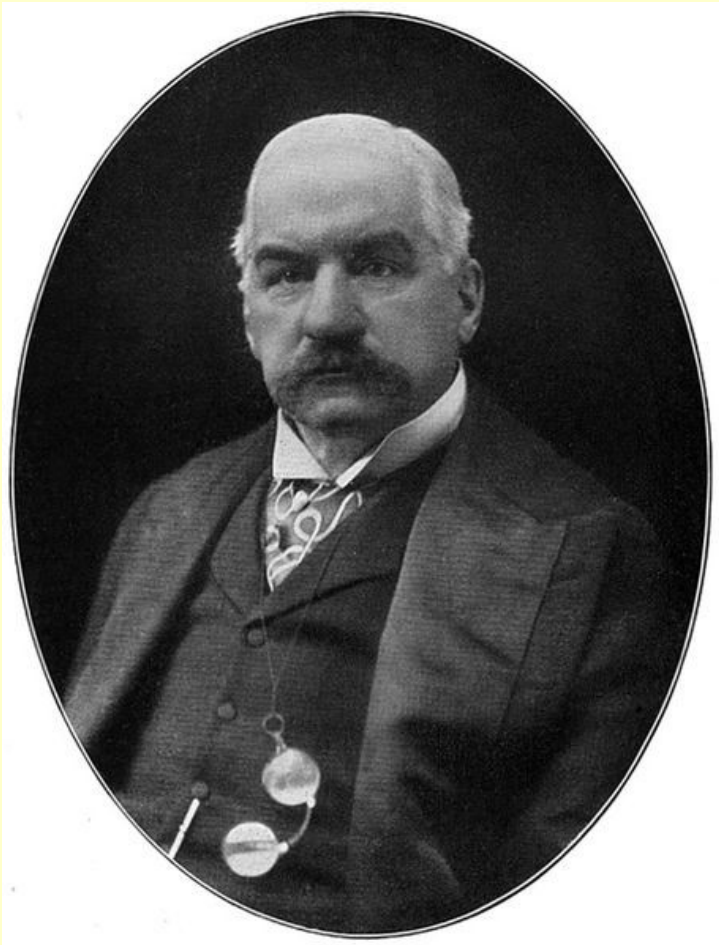
Railroads and Finance – Jay Gould



Duke Tobacco card from series
"Histories of Poor Boys Who Became
Rich and Other Famous People"

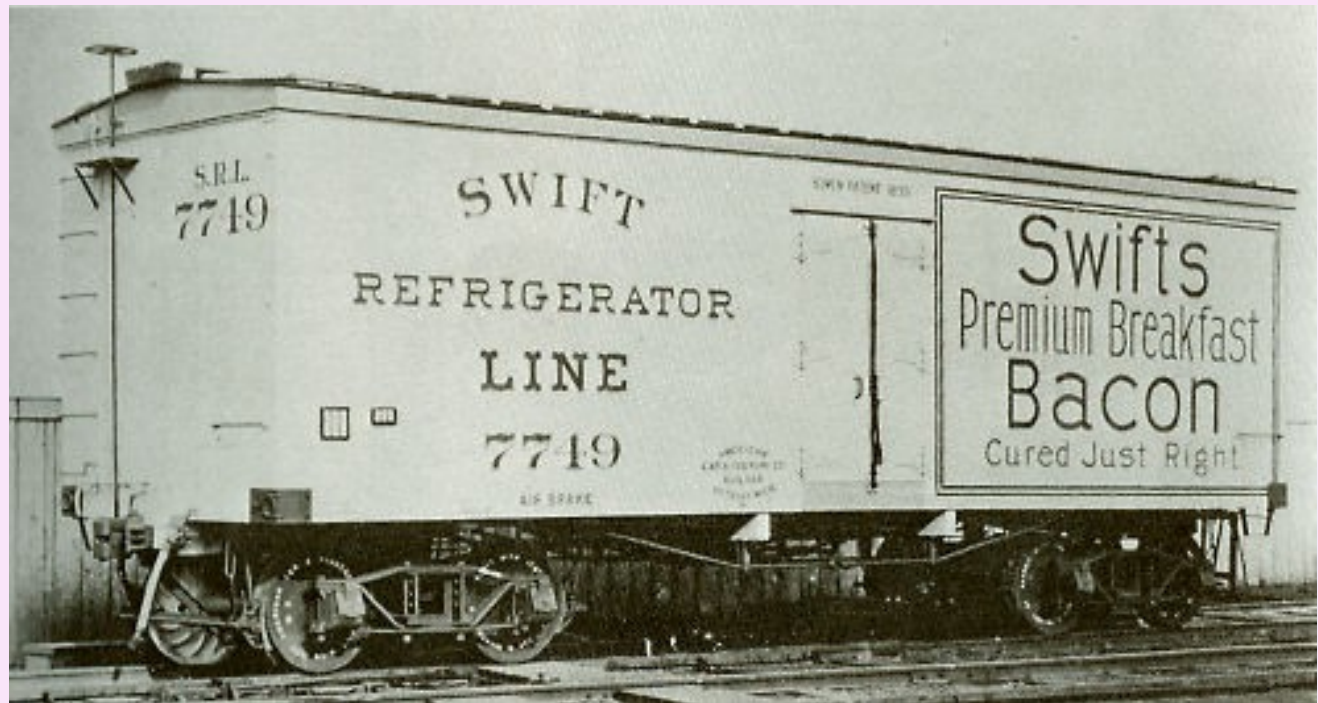
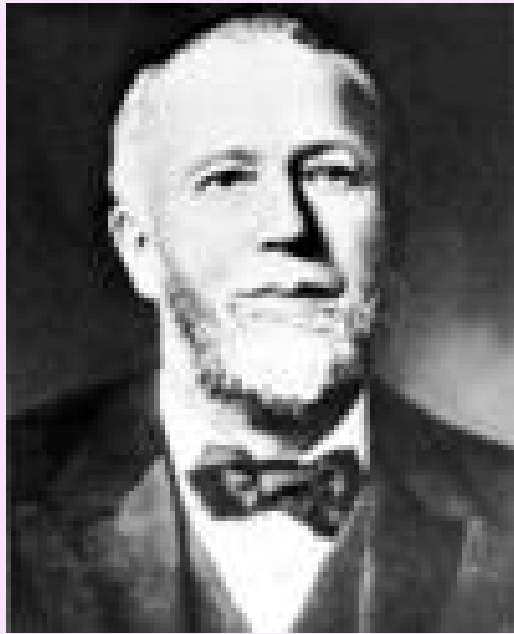
“Captains of Industry”

Finance – J. P. Morgan



“Captains of Industry”

Meat Packing – *Gustavus Swift*



“Captains of Industry”

Steel – *Andrew Carnegie*

